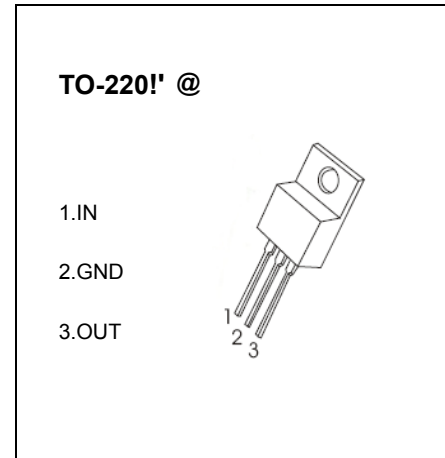


## TO-220!' @Plastic-Encapsulate Regulators

**CJ78M08** Three-terminal positive voltage regulator

**FEATURES**

- Maximum output current  
 $I_{OM}$ : 0.5 A
- Output voltage  
 $V_O$ : 8V
- Continuous total dissipation  
 $P_D$ : 1.5 W ( $T_a = 25\text{ }^\circ\text{C}$ )  
 15 W ( $T_c = 25\text{ }^\circ\text{C}$ )



**ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)**

Parameter	Symbol	Value	Unit
Input Voltage	$V_I$	25	V
Operating Junction Temperature Range	$T_{OPR}$	0-+125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65-+150	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ( $V_i=14V, I_o=350mA, C_i=0.33\mu F, C_o=0.1\mu F$ , unless otherwise specified)**

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	$V_o$	$25\text{ }^\circ\text{C}$	7.7	8	8.3	V
		$10.5V \leq V_i \leq 23V, I_o=5mA-350mA$ $P_o \leq 15W$	0-125 $^\circ\text{C}$	7.6	8	8.4
Load Regulation	$\Delta V_o$	$I_o=5mA-500mA$	$25\text{ }^\circ\text{C}$	20	160	mV
		$I_o=5mA-200mA$	$25\text{ }^\circ\text{C}$	10	80	mV
Line Regulation	$\Delta V_o$	$10.5V \leq V_i \leq 25V, I_o=200mA$	$25\text{ }^\circ\text{C}$	6	100	mV
		$11V \leq V_i \leq 25V, I_o=200mA$	$25\text{ }^\circ\text{C}$	2	50	mV
Quiescent Current	$I_q$	$25\text{ }^\circ\text{C}$		4.6	6	mA
Quiescent Current Change	$\Delta I_q$	$10.5V \leq V_i \leq 25V, I_o=200mA$	0-125 $^\circ\text{C}$		0.8	mA
		$5mA \leq I_o \leq 350mA$	0-125 $^\circ\text{C}$		0.5	mA
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz$	$25\text{ }^\circ\text{C}$	52		$\mu V$
Ripple Rejection	RR	$11.5V \leq V_i \leq 21.5V, f=120Hz, I_o=300mA$	0-125 $^\circ\text{C}$	56	80	dB
Dropout Voltage	$V_d$	$I_o=350mA$	$25\text{ }^\circ\text{C}$	2		V
Short Circuit Current	$I_{sc}$	$V_i=14V$	$25\text{ }^\circ\text{C}$	250		mA
Peak Current	$I_{pk}$	$25\text{ }^\circ\text{C}$		0.5		A

**TYPICAL APPLICATION**

